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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,836	03/09/2001	Jae-Han Park	P-198	5343

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EXAMINER	
AGDEPPA, HECTOR A	

ART UNIT	PAPER NUMBER
2642	

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/801,836	PARK, JAE-HAN	
	Examiner	Art Unit	
	Hector A. Agdeppa	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,553,427 (Chang et al.) in view of US 6,122636 (Friedlander et al.) and further in view of US 6,687,364 (Lehtinen).

As to claim 1, Chang et al. teaches an abstract, object-oriented encapsulation of the communications interface between intermediary, lower-level protocol handlers such as TCAP servers and high-level service providers. Chang et al. teaches that a TCAP server receives a TCAP message that includes a request INAP message, the INAP request message including a request type and request data. The TCAP server will extract the INAP message and encapsulate it in a message encapsulation interface object. The server will then pass the object to a service application program by calling a

transfer method of an object transfer interface object within the TCAP server, read as the claimed adding the INAP message object to a TCAP message object. ((Abstract, Figs. 8 and 9, Col. 1, line 14 – Col. 2, line 65, Col. 3, line 34 – Col. 6, line 54 of Chang et al.)

Moreover, INAP factory objects generating an INAP message object is inherent in any SS7 signaling system, inasmuch as the job of any factory object, like all class factories, is to create message objects.

What Chang et al. does not teach is adding the invoke ID and dialog ID.

However, Friedlander et al. teaches that a typical TCAP definition includes a at least a dialog I, which maintains the exchange dialog between two components, for example a switch and communications server; such as an SSP and an SCP, a subsystem number which specifies a specific server application and a service key. Friedlander et al. also teaches that the service key identifies the requested service to be invoked, read as the claimed invoke ID. (Col. 7, line 5 – Col. 8, line 67 of Friedlander et al.)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the above IDs to add inasmuch as these IDs identify the requested service. Without the addition of these in the message object, the proper service could not be effected.

Chang et al. and Friedlander et al. also do not teach generating and executing different transmission TCAP events based on a dialog state, and the sending and deleting of the object after a message is sent.

However, Lehtinen teaches that when an initiation request for a service dialog is received, a new instance of the receiving program is created that will, among other things, create an instance thereof for the use of the service request, and transmit a TCAP message to the instance. Once the instance is received, the instance is deleted. Moreover, Lehtinen teaches that, in general, service requests are sent with along with information about the state of the request. Therefore, depending on the state of the request, different TCAP events will be generated and executed. (Col. 6, lines 14 – 62 of Lehtinen and Col. 17, line 21 – Col. 22, line 57 of Chang et al.)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have incorporated the teaching of Lehtinen in the above combination of Chang et al. and Freidlander et al. inasmuch as they merely teach different aspects or stages of the signaling process in an SS7 environment. Moreover, as taught by Lehtinen, an SSP and SCP can have multiple back and forth communications, wherein there can be an initial message which simply begins the transaction, that message, as also taught by Friedlander et al., to contain at least the aforementioned service key. (Col. 5, lines 26 – 60 of Lehtinen, Col. 5, lines 20 – 53 of Friedlander et al.)

As to claim 2, Chang et al., Friedlander et al., and Lehtinen have been discussed above. Lehtinen further teaches that an initiation request for a service dialog arrives as a TC_BEGIN primitive. (Col. 6, lines 38 – 57 of Lehtinen)

As to claims 3 and 4, Chang et al. teaches that when an INAP message is embedded with in a TCAP message, it is in turn embedded within messages of a

numeb of additional protocol levels, each level requiring a separate message header to be appended to the message of the next lowest protocol layer. (Col. 4, lines 32 – 42 of Chang et al.)

As to claim 5, Chang et al., Friedlander et al., and Lehtinen have been discussed above and the limitation cited is merely a default condition when a TC primitive is received without accompanying a TC component.

Also, Lehtinen teaches that the architecture of an SCP includes for each INAP message set a corresponding dedicated program block. (Col. 6, lines 58 – 62 of Lehtinen)

As to claim 6, Lehtinen teaches that when a receiving program receives a standard TC_BEGIN primitive message, it must identify the relevant INAP message set version, i.e., decoding, on the basis of the TC_BEGIN message. Therefore, the subsequent TC primitives that will be generated are the same kind of the received INAP message. (Col. 6, lines 16 – 23 of Lehtinen)

As to claim 7, as with claim 5, such a limitation is merely another default condition implemented to allow signaling to continue even if a dialog ID is not found.

As to claim 8, see the rejection of claim 5. Moreover, the order of operation and execution regarding the processing of TC primitives and components received simultaneously is merely a design choice or preference for one of ordinary skill in the art at the time the invention was made.

As to claims 9 - 12, such limitations are merely the continuation of the back and forth signaling inherent in SS7 communications, discussed above. Once signaling has

passed the initial request, full duplex state must be invoked to allow and SSP and SCP to communicate as required.

As to claim 14, see the rejections of claims 1 and 5.

As to claim 15, see the rejection of claim 2.

As to claims 16 and 17, see the rejection of claims 9 – 13.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H.A.A.
March 4, 2004

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